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Keith A. Jahn

RK
1/24/01
#26/Appeal Brief

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF	:	Sullivan, et al.
FOR	:	**IMPROVED MULTI-LAYER GOLF BALL**
SERIAL NO.	:	08/926,872
FILED	:	September 10, 1997
GROUP ART UNIT	:	3711
EXAMINER	:	R. Gorden
LAST OFFICE ACTION	:	September 13, 2000
ATTORNEY DOCKET NO.	:	SLD 2 0121 P-4628-D1

Cleveland, Ohio 44114-2518
January 16, 2001

APPEAL BRIEF UNDER 37 C.F.R. 1.192

ATTENTION: Board of Patent Appeals and Interferences
Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

This brief is in furtherance of the Notice of Appeal that was filed in this case on September 13, 2000.

The fees required under § 1.17, and any required petition for extension of time for filing this brief and fees therefor, are dealt with in the accompanying Transmittal of Appeal Brief.

Appellants file herewith an Appeal Brief in connection with the above-identified application, wherein claims 1 and 3-8 were finally rejected in the Office Action of November 5, 1999. What follows is Appellants' Appeal Brief (submitted in triplicate) in accordance with 37 C.F.R. §1.192(a):

I. REAL PARTY IN INTEREST (37 C.F.R. §1.192(c)(1))

The real parties in interest in this appeal are the inventors named in the caption of this brief (Michael J. Sullivan, John L. Nealon, Mark Binette) and the assignee, Spalding Sports Worldwide, Inc..

II. RELATED APPEALS AND INTERFERENCES (37 C.F.R. §1.192(c)(2))

No related appeals or interferences are currently pending from any applications which the present application bases its priority from. However, Appeal Briefs have been filed for pending applications that are related to one or more of the parent applications from which the present application bases its priority. Although the present application is not directly related to the following applications, the following appeals are currently pending before the Board. These cases claim priority to one or more of the cases from which the present application claims priority.

U.S. Application Serial No.	Filing Date
08/815,556	March 12, 1997
09/121,628	July 23, 1998
08/926,246	September 5, 1997

Additionally, a Notice of Appeal has been filed in certain pending applications that, although not directly related to the present application, are related to one or more of the parent applications from which the present application bases its priority, and thus, may indirectly affect the present application. Those applications include:

U.S. Application Serial No.	Filing Date
08/870,585	June 6, 1997
08/926,194	September 9, 1997

Appellants note that an Appeal Brief has not yet been filed in the above applications, and a possibility exists that an Appeal Brief may not be filed with one or more of the above-mentioned applications.

III. STATUS OF CLAIMS (37 C.F.R. §1.192(c)(3))

The status of the claims set forth after the Final Office Action mailed March 13, 2000 and after the Advisory Action mailed October, 2000, was, and is, as follows:

Allowed claims: **none**

Rejected claims: **1** and **3-8**

The present appeal is directed specifically to claims **1** and **3-8**.

IV. STATUS OF THE AMENDMENTS (37 C.F.R. §1.192 (c)(4))

In the final Office Action of March 13, 2000, the Examiner rejected claims 1 and 3-8 under 35 U.S.C. § 112, first paragraph, for alleged inadequate disclosure. The Examiner provisionally rejected claims 1 and 4 under 35 U.S.C. § 101 for double patenting. The Examiner then provisionally rejected claims 3 and 5-8 for obviousness-type double patenting. In the Advisory Action of October 10, 2000, the Examiner stated that the proposed amendments to claims 1, 3, and 8 recited in the Appellants' Response dated September 13, 2000 would be entered upon the filing of the present Appeal Brief.

V. SUMMARY OF THE INVENTION 37 C.F.R. §1.192 (c)(5)

The present invention is directed to a three piece solid golf ball (page 9, line 18 of the specification) (claim 1). The golf ball comprises a center core, an intermediate layer, and a cover enclosing the core through the intermediate layer (page 9, line 18) (claim 1). The center core has a diameter of at least 29 mm (1.1417 inches) and a specific gravity of less than 1.4 (claim 1). The intermediate layer is formed of an ionomer resin base composition having a thickness of at least 1 mm (0.0397 inches),

a specific gravity of less than 1.2 (pp. 24 and 61), and a hardness of at least 85 on the JIS-C (Shore C) scale (claim 1). The specific gravity of the intermediate layer is lower than the specific gravity of the center core (claim 1). The cover has a thickness of 1 to 2.54 mm (0.0397 to 0.10 inches) and is softer than the intermediate layer (claim 1).

VI. ISSUES (37 C.F.R. §1.192(c)(6))

Whether claims 1 and 3-8 are sufficiently supported by the specification to satisfy the requirements under 35 U.S.C. § 112, first paragraph.

Whether the provisional rejections of claims 1 and 4 are proper under 35 U.S.C. § 101 for claiming the same subject matter as recited by claim 1 of U.S. Application Serial No. 08/926,194 and claims 1 and 4 of U.S. Application Serial No. 08/926,246.

Whether the provisional rejections of claims 3 and 5-8 for obviousness-type double patenting over claims 3 and 5-8 of U.S. Application Serial Nos. 08/926,194 and claims 1-8 of 08/926,246 should stand in light of the properly filed Terminal Disclaimer.

VII. GROUPING OF CLAIMS (37 C.F.R. §1.192(c)(7))

No two or more of the claims at issue, i.e., claims 1 and 3-8, stand or fall together. That is, each claim recites separately patentable subject matter. This is explained in greater detail below.

VIII. ARGUMENTS (37 C.F.R. §1.192(c)(8))

The Examiner's Rejection of Claims 1 and 3-8 Is Improper Because Those Claims Are Sufficiently Supported by the Specification to Satisfy 35 U.S.C. § 112, First Paragraph.

Claims 1 and 3-8 were rejected under 35 U.S.C. §112, first paragraph, for allegedly not being supported by the specification. The Examiner listed various terms from the claims that allegedly lack support.

The proper test for claim support under 35 U.S.C. § 112, first paragraph, is whether the disclosure as originally filed reasonably conveys to one skilled in the art that the inventor had possession of the claimed subject matter rather than the

presence or absence of literal support. *Ralston Purina Co. v. Far-Mar-Co., Inc.* 772 F.2d 1570 (Fed. Cir. 1985). If the *essence* of the original disclosure supports the new claim limitation, the new claimed feature is not new matter. *In re Wright,* 866 F.2d 422 (Fed. Cir. 1989).

Furthermore, the U.S. Patent and Trademark Office bears the initial burden of presenting a *prima facie* case of unpatentability. Insofar as the written requirement is concerned, that burden is only discharged by presenting evidence or reasons why persons skilled in the art would *not recognize* in the specification a description of the invention defined by the claims.

Appellants respectfully submit that the Examiner's rejections fail to meet a *prima facie* case for unpatentability since the support for the claims is readily found in the present specification.

Appellants have carefully reviewed this matter and submit that the claims are supported as follows:

1. Claim 1, Specific Gravity of the Core Less Than 1.4

The weights and diameters (i.e., size) for cores of the present invention golf balls are disclosed in the application. Based upon the weights and diameters for the cores disclosed in the present specification, the core density (i.e., specific gravity) may be calculated.

Core diameters for use in the present invention are disclosed in the present specification. Particularly, a core diameter of 1.47 inches (3.7338 cm) is disclosed on page 74 of the present specification. A core diameter of 1.47 inches yields a core volume of 27.26 cm^3.

In addition, page 46 of the present specification discloses a core mass of 40 grams. Thus, a core density (or specific gravity) of about 1.47 g/cm^3 (based on a core mass of 40 g and a core volume of 27.26 cm^3) is shown in the present specification. Furthermore, a specific value for the specific gravity of the core of 1.17 is explicitly disclosed on page 61.

Therefore, Appellants respectfully submit that the recitation of a specific gravity of the core less than 1.4 is disclosed in the present specification, and thus, this ground of rejection should be withdrawn.

2. Claim 1, Specific Gravity of the Intermediate Layer Less Than 1.2

Intermediate layer weight and thickness values are also disclosed in the present specification. The density (or specific gravity) of the intermediate layer may be calculated based upon its weight and thickness.

The density (or specific gravity) of the intermediate layer is calculated as follows. First, the volume of a core diameter, as disclosed in the present specification, is calculated as shown above. Second, the diameter of the core and intermediate layer thickness is determined by adding twice (once for each side of the golf ball) the thickness of the intermediate layer to the core diameter. Once the diameter of the core and intermediate layer is established, a total volume for the core and intermediate layer can then be calculated. Finally, the volume of the core (as previously determined) is subtracted from the volume of the intermediate layer plus core, which results in the determination of the volume of the intermediate layer. The weight of the intermediate layer is then divided by the volume of the intermediate layer to obtain the density of the intermediate layer.

A specific gravity of about 1.2 may be obtained from the mass and thickness of the intermediate layer as disclosed by the present specification. The present specification discloses that the intermediate layer may have a thickness of 0.0375 inches (0.09525 cm) (page 63). A core having a diameter of 1.47 inches and an intermediate layer having a thickness of 0.0375 inches is 1.545 inches (3.924 cm). The volume of the core and intermediate layer is 31.64 cm^3. The volume of the intermediate layer is the difference between the intermediate layer and core volume (31.64 cm^3) and the core volume (27.26 cm^3), which is 4.38 cm^3. The density of the intermediate layer is obtained by dividing the mass of the intermediate layer (5.7 g) by the volume (4.38 cm^3), which is 1.30. Therefore, the recitation of a specific gravity of 1.2 is adequately disclosed by the present specification.

In addition, the present specification also discloses specific gravities for the intermediate layer of less than 1.2. An intermediate layer specific gravity of 0.95 is disclosed on page 61 and numerous other specific gravities of the intermediate layer between 0.953 and 0.960 are disclosed on page 24. Therefore, the present

specification clearly discloses an intermediate layer having a specific gravity of less than 1.2.

Appellants respectfully submit that the present specification sufficiently discloses an intermediate layer with a specific gravity less than 1.2, and thus, satisfies the requirements under 35 U.S.C. 112, first paragraph.

3. Claim 1, JIS-C Hardness of the Intermediate Layer of at Least 85

The Examiner asserted that there is no support in the specification for claiming a JIS-C hardness of at least 85. Specifically, the Examiner contended that the specification failed to support a JIS C hardness range of 85 to 89.9. For clarification purposes, Appellants respectfully point out that the JIS scale corresponds to the commonly used "Shore" scale. As such, a JIS-C value of 85-89.9 correlates to a Shore C value of 85-89.9 for the intermediate layer. The specification for the present invention discloses in numerous places preferred Shore D hardness for the inner cover layer of at least 60 (pp. 14 and 30); 68 (p. 72); and 70 (p. 74). In ASTM D-2240 (attached herewith as Exhibit 1), a comparison chart relating Shore C to Shore D values is disclosed in Note 2. While the chart cannot be used for exact conversion, it is a good indicator of the relationship between Shore D and Shore C hardness as known to one skilled in the art. According to the chart, a value between 80 and 90 on the Shore C scale will correspond to a value of about 60 on the Shore D scale.

The Federal Circuit has allowed the comparison of one scale of Shore hardness to another scale of Shore hardness. *See, Chemcast Corp. v. Arco Indus. Corp.*, 16 U.S.P.Q.2d 1033 (Fed. Cir. 1990). The court agreed with the district court in that case that there can be overlap between two Shore scales, and stated in footnote 1:

> There is some overlap in the range of use of the durometers. A conversion chart is published by the Shore Instruments & Manufacturing Co. which shows that the range of 30 to 100 on the scale of a Shore A durometer corresponds to the range of 6 to 58 on a Shore D durometer. The American Society for Testing Materials (ASTM) sets the standards to [sic, with] which the plastics and rubber industry comply [sic, complies] and recommends that hardness above 90 on the Shore A scale be measured with a Shore D durometer for greater accuracy. *Chemcast Corp. v. Arco Indus. Corp., 5 U.S.P.Q.2d 1225, 1227 (E.D.Mich. 1987).*

Id. at 1034. Thus, in using the comparison chart as published by the ASTM, it is clear that the disclosure of a Shore D hardness of 60 and above, as in the present specification, corresponds to a Shore C hardness in the range of 80-90.

Based on the foregoing, the present specification adequately discloses the intermediate layer having a JIS-C hardness of at least 85.

4. Claim 1, Specific Gravity of the Intermediate Layer Lower than the Specific Gravity of the Core

The Examiner also contended that the present specification does not support the recitation of claim 1 that the specific gravity of the intermediate layer is lower than the specific gravity of the core.

Appellants respectfully point out that on page 61, example 5, the specification of the present specification discloses a core with a specific gravity of about 1.17 with an inner cover that has a specific gravity of 0.95. Clearly, the specific gravity of the intermediate layer is less than the specific gravity of the core in this example. Furthermore, the previously noted ranges of specific gravities for the intermediate layer and core respond to this claim recitation. As such, the present specification slows that the specific gravity of the intermediate layer is lower than the specific gravity of the core.

Accordingly, the present specification adequately discloses that the specific gravity of the intermediate layer is lower than the specific gravity of the core.

5. Claim 1, Upper Limit of the Thickness of the Cover

The Examiner rejected claim 1 under 35 U.S.C. 112, first paragraph, as containing subject matter not described in the specification. Specifically, the Examiner stated that the upper limit of the thickness of the cover was new matter.

In the Response dated September 13, 2000, Appellants amended claim 1 to recite the upper limit of the thickness of the cover to be 2.54 mm (0.10 inches), which is disclosed on page 13 of the present specification. The Examiner acknowledged in the Advisory Action of February 16, 2000, that amendment would be entered. Accordingly, this ground of rejection has been remedied.

6. Claim 3, JIS-C Hardness

Claim 3 was rejected under 35 U.S.C. 112, first paragraph, for purportedly containing subject matter not described in the specification. Specifically, the Examiner contended that JIS-C hardness of the core from 45 to 80 is not disclosed within the specification. Additionally, the Examiner contended that JIS-C hardness of the cover from 81.1 to 85 is not within the disclosure of the specification.

Claim 3 has been amended so that the JIS-C hardness of the core is no longer recited. The recited range for the JIS-C hardness of the cover is disclosed in the specification. The Examiner acknowledged in the Advisory Action of October 10, 2000, that amendment would be entered upon the filing of the present Appeal Brief. Accordingly, this ground of rejection has been remedied.

7. Claim 6, Difference in the Specific Gravity Between the Core and Intermediate Layer is 0.1 to 0.5

Claim 6 was rejected by the Examiner under 35 U.S.C. 112 for purportedly lacking support from the specification. Specifically, the Examiner stated that there was no support to claim a difference in the specific gravity between the core and intermediate layer from 0.1 to 0.5.

The present specification discloses a core having a specific gravity of 1.47 when the core has a diameter of 1.47 inches and a mass of 40g. Also, page 24 of the present specification also discloses the intermediate layer having a specific gravity of 0.960. The difference between the specific gravity of the core and the intermediate layer is 0.51 (1.47 - 0.960).

As for the difference of specific gravity of 0.1 between the core and intermediate layer, the present specification discloses a specific gravity of 1.40 for the core having a diameter of 1.43 inches (page 72) and a mass of 35.13 g (page 46 of the present specification discloses that the core may preferably have a weight of 30 grams to 40 grams). Also, the present specification discloses an intermediate layer having a specific gravity of 1.30 when the intermediate layer thickness is 0.0375 inches and the mass is 5.7g. The difference between the core (1.40) and intermediate layer (1.30) is 0.10. Therefore, the present specification adequately discloses the specific gravity difference of 0.1 between the core and intermediate layer.

On page 61, the specification discloses a golf ball with a core having a specific gravity of about 1.17 and an inner cover with a specific gravity of about 0.95. The difference in the specific gravities in this example is 0.22, which is clearly within the range claimed in claim 6.

For at least these reasons, Appellants respectfully submit that the present specification adequately discloses the particular claimed feature at issue.

8. Claim 7, Specific Gravity of Intermediate Layer is 0.9 to 1.0

Claim 7 was rejected by the Examiner under 35 U.S.C. 112 for purportedly lacking support from the specification. Specifically, the Examiner contended that there was no support to claim a specific gravity of the intermediate layer from 0.9 to 1.0.

The present specification discloses an intermediate layer having a specific gravity of 1.30 when the intermediate layer has a thickness of 0.0375 inches and a mass of 5.7g. The upper recited specific gravity limit of 1.0 is within the disclosed specific gravity of 1.30. As for the lower range of 0.90, the present specification discloses an intermediate layer mass of 5.7 g (page 74) and a thickness of 0.055 inches (page 13 of the present specification discloses an intermediate layer thickness of 0.05 - 0.10 inches). A mass of 5.7g and a thickness of 0.055 inches gives the intermediate layer a specific gravity of 0.90. Therefore, the lower specific gravity value of 0.90 is disclosed in the present specification.

Appellants respectfully submit that a specific gravity for the intermediate layer of 0.95 is disclosed within the specification on page 61. Further, on page 24 of the specification, numerous densities of the inner cover layers used for the present invention balls are disclosed between the range of 0.953 to 0.960.

Appellants respectfully submit that this ground of rejection has been overcome.

9. Claim 8, JIS-C Hardness of the Intermediate Layer

Claim 8 was rejected under 35 U.S.C. § 112, first paragraph, for purportedly containing subject matter not described in the specification. Specifically, the Examiner contended that JIS-C hardness of the intermediate layer from 85 to 89.9 is not disclosed within the specification.

The specification of the present specification discloses a range of Shore D hardnesses for the intermediate layer. For instance, Shore D hardnesses of 60 (pp 14 and 30); 68 (p. 72); and 70 (P. 74) are disclosed in the specification. Using the previously noted comparison chart (Exhibit 1), a range of Shore C hardnesses are disclosed, such as from about 80 Shore C to about 100 Shore C.

Notwithstanding such disclosure, in order to facilitate allowance of claim 8, that claim was previously amended to modify the JIS C hardness range from 85-100 to 90-100. The Examiner acknowledged in the Advisory Action of October 10, 2000, that amendment would be entered.

Accordingly, this ground of rejection has been overcome.

For at least these reasons, claims 1-8 satisfy the adequate disclosure requirement under 35 U.S.C. § 112, first paragraph.

The Examiner's Provisional Rejection of Claims 1 and 4 under 35 U.S.C. § 101 for Claiming the Same Subject Matter as Recited by Claim 1 of U.S. Application Serial No. 08/926,194 and Claims 1 and 4 of U.S. Application Serial No. 08/926,246 Is Erroneous.

The Examiner provisionally rejected claims 1 and 4 of the present specification under 35 U.S.C. § 101 as allegedly claiming the same invention as that of claim 1 of copending application No. 08/926,194 and claims 1 and 4 of 08/926,246. For the reasons set forth below, Appellants respectfully submit that cancellation or further amendment of the allegedly conflicting claims is not necessary, as the claims as presently pending and amended are not coextensive in scope with those of the noted copending cases. As such, Appellants respectfully request allowance of claims 1 and 4 as currently written.

The Examiner correctly points out that a statutory double patenting rejection under 35 U.S.C. § 101 requires that the invention must be drawn to identical subject matter. *See, Miller v. Eagle Mfg. Co.,* 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 U.S.P.Q. 330 (CC PA 1957); and *In re Vogel*, 422 F.2d 438, 164 U.S.P.Q. 619 (CC PA 1970). Appellants respectfully submit that the present claims do not recite the identical subject matter as recited in claim 1 of U.S. Application Serial No. 08/926,194 and claims 1 and 4 of U.S. Application Serial No. 08/926,246.

Claim 1 of copending Application No 08/926,194 (the '194 application) and claim 1 of copending Application No. 08/926,246 (the '246 application) do not recite the identical subject matter as claim 1 of the present specification. Claim 1 of the present specification recites a range of the outer cover thickness of the golf ball of 1-2.54 mm, whereas claim 1 from both the '194 application and the '246 application claim a different and broader range of allowable values for the outer cover thickness of the golf ball. Further, claim 1 from the present specification recites that the intermediate layer is formed of an ionomer resin base composition. In contrast, claim 1 from the '194 application and '246 application do not recite the particular composition of the intermediate layers. Since these two features in claim 1 of the present specification are different than in claim 1 of the copending '246 and '194 applications, it cannot be said that the claims recite the same identical subject matter.

Thus, Appellants respectfully request the Examiner to withdraw the provisional rejection of claim 1 of the current application under 35 U.S.C. § 101.

Claim 4 has also been provisionally rejected by the Examiner as claiming the same invention as claim 4 of the '246 application. Appellants respectfully point out that each claim 4 in the '246 application and the present specification are dependent from each respective claim 1. As explained above, claim 1 of the present specification does not recite identical subject matter from claim 1 of the '246 application. Since claim 4 of the present specification and the '246 application depend from non-identical independent claims 1, it cannot be said that claim 4 of the two applications recite identical subject matter.

Thus, Appellants respectfully request the Examiner to also remove the provisional rejection of claim 4 of the current application under 35 U.S.C. § 101.

The Provisional Rejection of Claims 3 and 5-8 for Obviousness-type Double Patenting Has Been Overcome by the Filing of the Enclosed Terminal Disclaimers.

Claims 3 and 5-8 were rejected over claims 3 and 5-8 of copending U.S. Application Serial No. 08/926,194 and claims 1-8 of U.S. Application Serial No. 08/926,246 for obviousness-type double patenting.

Appellants herewith submit a Terminal Disclaimer for each application signed by an attorney of record to overcome the provisional obviousness-type double patenting rejection. Appellants respectfully submit that the provisional rejection of claims 3 and 5-8 has been overcome.

IX. CONCLUSION

In view of the above, Appellants respectfully submit that claims 1 and 3-8 are in condition for allowance.

Accordingly, it is respectfully requested that the Examiner's rejection of claims 1 and 3-8 be reversed.

Respectfully submitted,

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DATED: January 16, 2001

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X. APPENDIX OF CLAIMS (37 C.F.R. §1.192(c)(9))

1. A three piece solid golf ball comprising:

a center core, an intermediate layer, and a cover enclosing the core through the intermediate layer;

said center core having a diameter of at least 29 mm (1.1417 inches) and a specific gravity of less than 1.4;

said intermediate layer formed of an ionomer resin base composition and having a thickness of at least 1 mm (0.03937 inches), a specific gravity of less than 1.2, and a hardness of at least 85 on JIS C (Shore C) scale, the specific gravity of said intermediate layer being lower than the specific gravity of said center core; and said cover having a thickness of 1 to 2.54 mm (0.03937 to 0.10 inches) and being softer than said intermediate layer.

3. The golf ball of claim 1 wherein said cover has a hardness of 50 to 81 on JIS C (Shore C) scale.

4. The golf ball of claim 1 wherein said center core is comprised of a polybutadiene base rubber composition.

5. The golf ball of claim 1 wherein the diameter of said center core is in the range of 29-37 mm (1.1417 to 1.4567 inches).

6. The golf ball of claim 1 wherein a difference in the specific gravity between the center core and the intermediate layer is in the range of 0.1 to 0.5.

7. The golf ball of claim 1 wherein the specific gravity of said intermediate layer is in the range of 0.9 to 1.0.

8. The golf ball of claim 1 wherein the hardness of said intermediate layer is in the range of 90 -100 on JIS C (Shore C) scale.